

10/543,098

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|---------------------------------|------------------|---------|------------------|
| L1 | 487 | (556/21).CCLS. | US-PGPUB; USPAT; EPO; JPO | OR | OFF | 2007/11/26 12:00 |
| L2 | 284 | (556/23).CCLS. | US-PGPUB; USPAT; EPO; JPO | OR | OFF | 2007/11/26 12:03 |
| L3 | 1019 | (556/136).CCLS. | US-PGPUB; USPAT; EPO; JPO | OR | OFF | 2007/11/26 12:12 |
| L4 | 2218 | (502/152).CCLS. | US-PGPUB; USPAT; EPO; JPO | OR | OFF | 2007/11/26 12:38 |
| L5 | 1481 | (502/155).CCLS. | US-PGPUB; USPAT; EPO; JPO | OR | OFF | 2007/11/26 12:51 |
| L6 | 3 | ((("5710298") or ("5831108") or ("6407190")).PN. | US-PGPUB; USPAT; EPO; JPO | OR | OFF | 2007/11/26 12:51 |

10/543,098

(FILE 'HOME' ENTERED AT 13:15:40 ON 26 NOV 2007)

FILE 'REGISTRY' ENTERED AT 13:15:58 ON 26 NOV 2007

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 Os,Ru

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 13:16:24 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 19280 TO ITERATE

10.4% PROCESSED 2000 ITERATIONS

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 377287 TO 393913

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 13:16:29 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 384835 TO ITERATE

100.0% PROCESSED 384835 ITERATIONS

381 ANSWERS

SEARCH TIME: 00.00.05

L3 381 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 13:16:46 ON 26 NOV 2007

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FILE LAST UPDATED: 25 Nov 2007 (20071125/ED)

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=> s l3/prep

124 L3
4493296 PREP/RL
L4 106 L3/PREP
(L3 (L) PREP/RL)

=> s l4 and py<=2003

23956017 PY<=2003
L5 91 L4 AND PY<=2003

=> s l5 and zero-valent

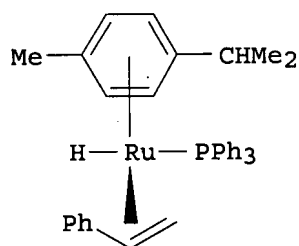
211028 ZERO
14995 VALENT
2106 ZERO-VALENT
(ZERO(W) VALENT)
L6 0 L5 AND ZERO-VALENT

=> s l5 and olefin

105908 OLEFIN
L7 2 L5 AND OLEFIN

=> d 1-3 bib abs

L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:465882 CAPLUS
DN 123:9651
TI Ethylene Insertion into a Ruthenium-Phenyl Bond of a Chiral Lewis Acid. A Facile Method of Preparing Olefin-Hydride Complexes. The Crystal Structure of [CyRuH(C2H3Ph)(PPh3)] SbF6·CH2Cl2
AU Faller, J. W.; Chase, Kevin J.
CS Department of Chemistry, Yale University, New Haven, CT, 06520-8107, USA
SO Organometallics (1995), 14(4), 1592-600
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 123:9651
GI



I

AB Treatment of $\text{CyRuPR}_3\text{Cl}_2$ (Cy = η^6 -cymene, p-isopropyltoluene; R = Ph or OMe) with PhMgBr gave the racemic Ru complexes $\text{CyRuBrPh(PPh}_3\text{)}$ (3) and $\text{CyRuClPh(P(OMe)}_3\text{)}$ (4). Reaction of 3 or 4 with AgSbF_6 in the presence of 1 atm of ethylene at ambient temperature or below leads to the styrene-hydride complexes $[\text{CyRuH(C}_2\text{H}_3\text{Ph)(PR}_3\text{)}][\text{SbF}_6]$ 5 (R = Ph) and 6 (R = OMe). NMR and chemical studies of both 5 and 6 showed that they exist as two diastereomers in solution. Only one rotamer of each diastereomer is present in significant concns., and rotational averaging of the resonances from this process is essentially complete at ambient temps. Hydrogen exchange between the olefin and hydride causes averaging at higher temps. than olefin rotation and also provides a route for interconversion of the diastereomers. A significant feature of the insertion process is that the formation of a secondary alkyl, α -phenethyl, is more facile than that of the primary alkyl, β -phenethyl. An x-ray crystal structure determination of 5 (shown as I) shows a classical olefin-hydride structure rather than an agostic Ru-H-C interaction. Racemic 5 crystallizes in the monoclinic space group $\text{P}2_1/\text{n}$ with a 10.49, b 15.24(1), c 24.015(4) Å, β 101.94(3)°, Z = 4. The reaction of 3 with AgSbF_6 in the presence of CO gives $[\text{CyRu(CO)Ph(PPh}_3\text{)}][\text{SbF}_6]$ (7).

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:174374 CAPLUS

DN 116:174374

TI Reactions of transition-metal σ -acetylide complexes. 15.
Cycloaddition of trans-1,2-bis(methoxycarbonyl)-1-cyanoethene: studies on the mode of ring opening of σ -cyclobutenyl complexes. X-ray structures of two isomers of ruthenium complexes
 $\text{Ru}\{\text{C:CPhCH(CO}_2\text{Me)C(CN)(CO}_2\text{Me)}\}(\text{CO})(\text{PPh}_3)(\eta\text{-C}_5\text{H}_5)$,
 $\text{Ru}\{\text{C[:C(CN)(CO}_2\text{Me)]CPh:CH(CO}_2\text{Me)}\}(\text{CO})(\text{PPh}_3)(\eta\text{-C}_5\text{H}_5)$, and
 $\text{Ru}\{\eta^3\text{-CH(CO}_2\text{Me)CPhC:C(CN)(CO}_2\text{Me)}\}(\text{CO})(\eta\text{-C}_5\text{H}_5)$

AU Bruce, Michael I.; Duffy, D. Neil; Liddell, Michael J.; Tiekink, Edward R. T.; Nicholson, Brian K.

CS Dep. Phys. Inorg. Chem., Univ. Adelaide, Adelaide, 5001, Australia

SO Organometallics (1992), 11(4), 1527-36

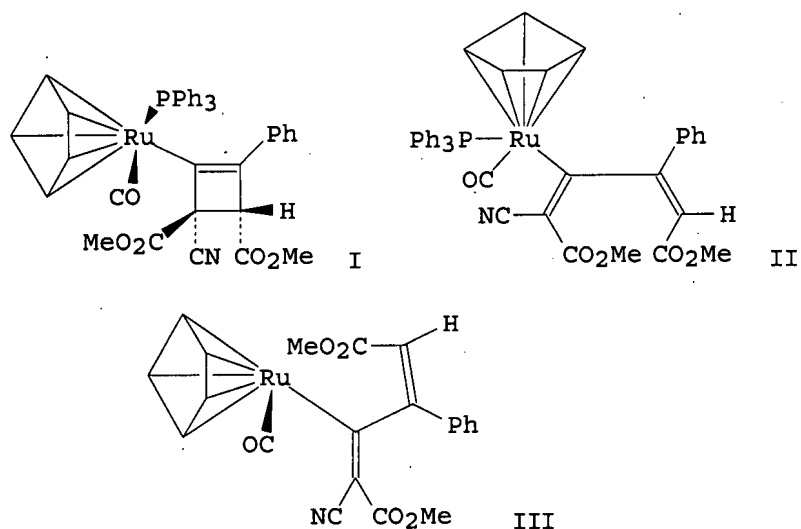
CODEN: ORGND7; ISSN: 0276-7333

DT Journal

LA English

OS CASREACT 116:174374

GI



AB Cycloaddn. of trans-CH(CO₂Me):C(CN)(CO₂Me) to Ru(C₂Ph)(CO)(PPh₃)(η -C₅H₅) afforded two isomers of the cyclobutenyl complex Ru{C:CPhCH(CO₂Me)C(CN)(CO₂Me)}(CO)(PPh₃)(η -C₅H₅) (e.g., I) formed by approach of the acetylide to each side of the olefin plane. Thermal opening of the cyclobutenyl ring occurred in conrotatory fashion in both complexes to give the same butadienyl complex II i.e., the σ -bonded transition-metal-ligand substituent does not affect the course of the reaction, which is in accord with the Woodward-Hoffmann rules. Further heating of the butadienyl complex resulted in loss of PPh₃ rather than CO and formation of III. All four complexes were characterized by single-crystal x-ray studies.